

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 20, 2006

**TO:** K. Fortenberry, Technical Director  
**FROM:** R. Quirk and W. Linzau, Hanford Site Representatives  
**SUBJECT:** Activity Report for the Week Ending October 20, 2006

Board's staff members J. Troan, J. Shackelford, and R. Zavadoski were on-site this week reviewing the design of the Demonstration Bulk Vitrification System.

K Basins Closure: The transfer of sludge from K East to K West using the Hose-In-Hose Transfer System commenced this week. There were a series of relatively minor operational problems that have caused delays, including a failure of the motor operator for the primary dilution valve. Transfers are on hold until the problem with this valve can be diagnosed and repaired. It is estimated that more than half of the sludge in container 101 has been transferred to K West. Visibility in the K West Basin has been degraded because not all the transferred sludge is being captured in the containers. Because of the reduced visibility, it is not possible to see how much sludge has been transferred into the containers.

The project completed containerization of bulk sludge in K East this week. The Richland Field Office will verify completion of containerization by visual inspection of selected areas of the basin floor using remote video cameras. If the results are satisfactory, it is expected that they will confirm completion of the commitment for bulk sludge containerization in K East Basin per the revised implementation plan for Recommendation 2000-1.

Waste Treatment Plant (WTP): K. Stokoe from the University of Texas (UT) and B. Redpath arrived on-site to conduct shear wave data collection on the first of three deep boreholes but were unable to collect data using UT's vibratory seismic source (T-Rex) because of a hydraulic leak. The UT team is attempting repairs in an effort to collect the data this weekend before they have to leave to fulfill other commitments. While waiting for repairs to be completed on T-Rex, B. Redpath commenced data collection using the hammer impact technique for the vibratory source but may be unable to collect data to the complete depth. K. Stokoe is scheduled to return early next month to collect data from the remaining deep boreholes.

Plutonium Finishing Plant (PFP): The site rep accompanied contractor personnel on a walkdown of Building 291-Z to look at a section of out-of-service ventilation duct that has significant internal corrosion. The duct connected the incinerator building (232-Z, now demolished) to the main facility exhaust header but has been isolated for years. The project is looking at options for repair of the corroded duct, such as applying a heavy duty protective coating and providing additional structural supports. The site rep requested more information on the levels of contamination contained in the duct and the amount of deterioration due to the interior corrosion.

Tank Farms: The site rep noted that the contract extension did not include DOE Order 420.1B. ORP management agreed to address this error and look for other potential omissions.